COLLIDER-ACCELERATOR DEPARTMENT

Title: OSH Management Plan for Experiments

Prepared by: E. Lessard
Group: ESH&Q

Approvals

Signature on File Date:

ESH&Q Division Head

Signature on File Date:

Collider-Accelerator Department Chairman

(Indicate additional signatures)

Y	N		
☐	x	FS Representative:	Date:
☐	x	Radiological Control Coordinator:	Date:
☐	x	Chief ME:	Date:
☐	x	Chief EE:	Date:
x	☐	ESH Coordinator:	Date:
☐	x	QA Manager:	Date:
x	☐	Other: ESRC Chair *Signature on File*	Date:

OSH MANAGEMENT PLAN Experiments	**Completed by:** E. Lessard **Date:** July 21, 2003

1. Hazards:

- Ionizing Radiation
- Non-Ionizing Radiation
- Hazardous or Toxic Materials
- Radioactive Materials
- Electrical Energy
- Explosive Gases and Liquids
- Oxygen Deficiency
- Kinetic Energy
- Potential Energy
- Thermal Energy
- Cryogenic Temperatures

2. Department-supported Objective(s):

- An injury free workplace
- Compliance with OSH requirements in SBMS
- Workers are consulted and encouraged to participate actively in all elements of the OSH management system
- Improved performance of the OSH management system
- OSH management system is integrated with the EMS management system

3. Department-supported Target(s):

- Reduce year over year injury/illness rates
- Implement corrective actions in report of ad hoc Electrical Safety Review Committee, see ATS 1425
- Establishment and efficient functioning of an OSH committee with worker representation
- A fully implemented ILO-OSH-2001/OSHAS 18001 type OSH management system
- A joint OSH, EMS and Self-Assessment Management Review

4. Department-wide OSH Performance Indicator(s):

- Tier I inspection results
- Injury/ Illness Rates
- The number of Occurrence Reports and Critiques dealing OSH
- Completion of tasks listed in Section 10

5. Department-wide Plan Description:

The OSH Management Plan for Experiments is assured through a documented program of safety reviews and experiment work planning. OSH subject matter experts from the BNL Safety and Health Services Division (SHSD) serve on the C-AD Experimental Safety Review Committee (ESRC), which is the focal point for documenting safety issues for new or modified experiments. Additionally, radiological issues are reviewed by the C-AD Radiation Safety Committee and subject matter experts from Radiological

Controls Division (RCD) are on this committee. It is the responsibility of the subject matter experts from SHSD and RCD to help review activities brought before the committees for implementation of OSH controls.

Day to day OSH issues and action items are incorporated, as appropriate, through the work planning process documented in C-A-OPM 2.29.

The Departmental Self-Assessment (SA) program, Worker Occupational Safety and Health Committee, OSH/EMS/SA Management review, Tier I inspections, and the annual OSH compliance review are also designed to help the meet the FY03 objectives in this Plan. Tracking and trending illness/injury rates as well as on time regulatory reporting contribute towards achieving OSH objectives and targets.

6. Potential Impact(s):

- Unsafe acts could injure personnel
- Undocumented or unreported OSH events could violate DOE requirements
- Improper compliance with SBMS requirements could create hazardous work environments, which could injure workers

7. Legal and Other Requirements:

ESH Standards:

1.2.0 Departmental Environment, Safety & Health Inspection
1.2.1.Corrective Action Management and Tracking for Internal and External Assessments
1.3.1 Construction Safety
1.4.0 Compressed Gas Cylinder Safety
1.4.1 Pressurized Systems for Experimental Use
1.4.2 Glass and Plastic Window Design for Pressure Vessels
1.5.0 Electrical Safety
1.5.1 Lockout/Tagout Requirements
1.5.2 Design Criteria for Electrical Equipment
1.5.3 Interlock Safety for Protection of Personnel
1.6.0 Material Handling: Equipment and Procedures
1.6.1 Material Handling: Operator Training and Qualifications
1.9.0 Traffic Safety
1.14.0 Identification of Piping Systems
1.16.0 Personal Protective Equipment
1.18.0 Excavation Safety
2.1.3 Pesticides
2.2.1 Laboratory Workplace Standard for Non-Radioactive Toxic Substances
2.2.4 Confined Spaces
2.3.2 RF and Microwaves
2.4.0 Noise
2.5.0 Heat Stress
2.6.0 Sanitation
2.8.0 Bloodborne Pathogens
5.10 Nonflammable Cryogenic Liquids

SBMS Subject Areas:
Beryllium
Biosafety in Research
Chemicals, Working with
Investigation of Incidents, Accidents and Injuries
Laser Safety
Lead
Lifting Safety
Oxygen Deficiency Hazards (ODH), System Classification and Controls
Respiratory Protection
Static Magnetic Fields
Work Planning & Control

8. Operational Controls: See OSH Operational Controls Form

9. Budget: Operating Budget

10. Structure, Authorities, Responsibilities

Tasks	Person Responsible	Completion Dates
Ensure the NSRL facility is designed and constructed to meet OSH requirements	D. Phillips	June 19, 2003
Review the PHENIX, PHOBOS, STAR, PP2PP and BRAHMS experiments at RHIC for conventional safety issues	Y. Makdisi	Prior to startup during FY 03
Review the NSRL experiments for conventional safety issues	Y. Makdisi	Prior to startup during FY 03
Review the PRAD experiment in the U line for conventional safety issues	Y. Makdisi	Prior to start up during FY 03
Complete the work plans for NSRL, RHIC and AGS experiments	P. Cirnigliaro	Prior to startup during FY 03
Implement a formal OSH Management system for accelerators, experimental areas, offices and shops at C-AD that is similar to ILO-OSH-2001and OSHAS 18001	E. Lessard	10/01/03
Complete the OSH Team task list	OSH Team	10/01/03
Establish a functioning WOSH Committee	E. Lessard	05/30/03